

GOOD MORNING





WELCOME



MARKETING STORE



KOLLAM DAIRY
ISO 9001-2000 Certified

PRESENTATION ON TOTAL ENERGY MANAGEMENT

ORGANISATION PROFILE

Commissioned on : 26-01-1986
Capacity : 60,000 Litres per day

Expanded on : 16-03-2001
Capacity : 1 Lakh ltrs. per day



ENERGY MONITORING COMMITTEE

1. Sri. Prasanna Kumar, Dairy Manager
2. Sri. C. K. James, Asst. Manager (Maint)
3. Sri. C. Balasubramony, Deputy Engineer
4. Sri. Ajith Kumar , Deputy Engineer
5. Sri. Rajesh , Technical Officer
6. Sri. D. John, Technician
7. Sri. P. Sasi, Technician
8. Sri. Mohanachandran , Plant Operator





PRESENT HANDLING OF MILK AND MILK PRODUCTS

1. Milk : 5425 KL Per month
(175000 Lit/day)
2. Ghee : 32 T per month
3. Curd : 170 KL per month
4. Sambharam : 5.2 KL per month

KOLLAM DAIRY PRODUCTION DETAILS

YEAR	MILK(Lit)	GHEE(Kg)	CURD(Lit)	SAMBARAM (Lit)
2006-07	52999674.00	297173	2003796	393036
2007-08	54211939.00	316654	1655258	267880
2008-09	55246243.00	329545	1855044	309358



KOLLAM DAIRY

MILK PROCESSED / ELECTRICITY(KWH)

YEAR	MILK PROCESSED	KWH	MILK/KWH
2006-07	52998674.00	1891940	28.01
2007-08	54211939.00	1869252	29.00
2008-09	55246243.00	1780716	31.02





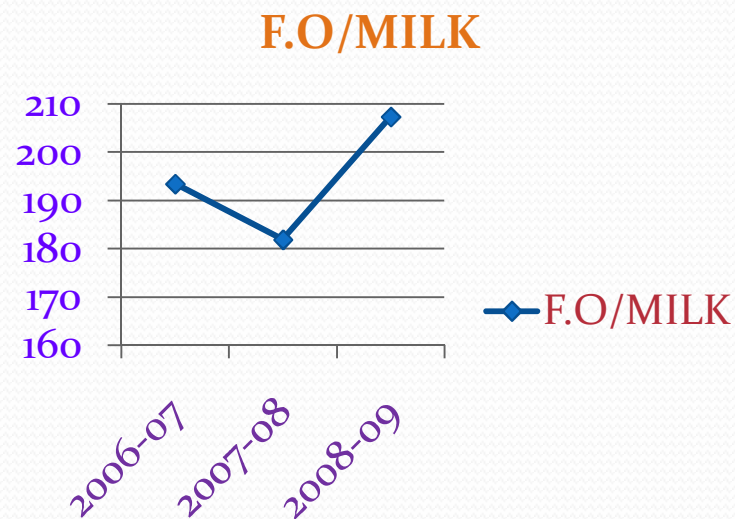
KOLLAM DAIRY
COSUMPTION OF WATER / LITRE MILK PROCESSED

YEAR	MILK PROCESSED	WATER.KL	MILK/ WATER. Lit
2006-07	52998674.00	130551	2.46
2007-08	54211939.00	133110	2.46
2008-09	55246243.00	114829	2.08

KOLLAM DAIRY

FURNACE OIL/ LITRE MILK PROCESSED

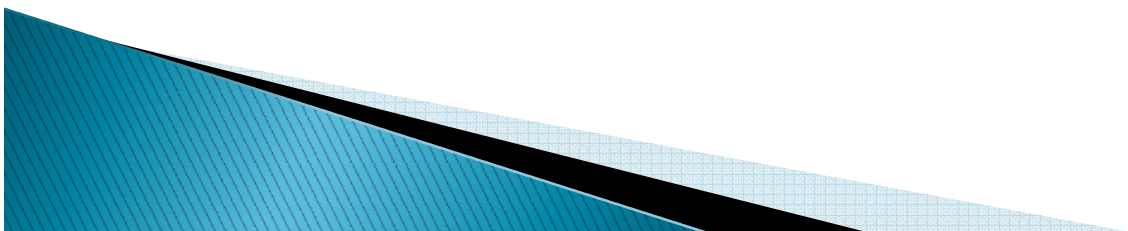
YEAR	MILK PROCESSED	F.O . LITRE	MILK/F.O. Lit
2006-07	52998674.00	274000	193
2007-08	54211939.00	298000	182
2008-09	55246243.00	266500	207



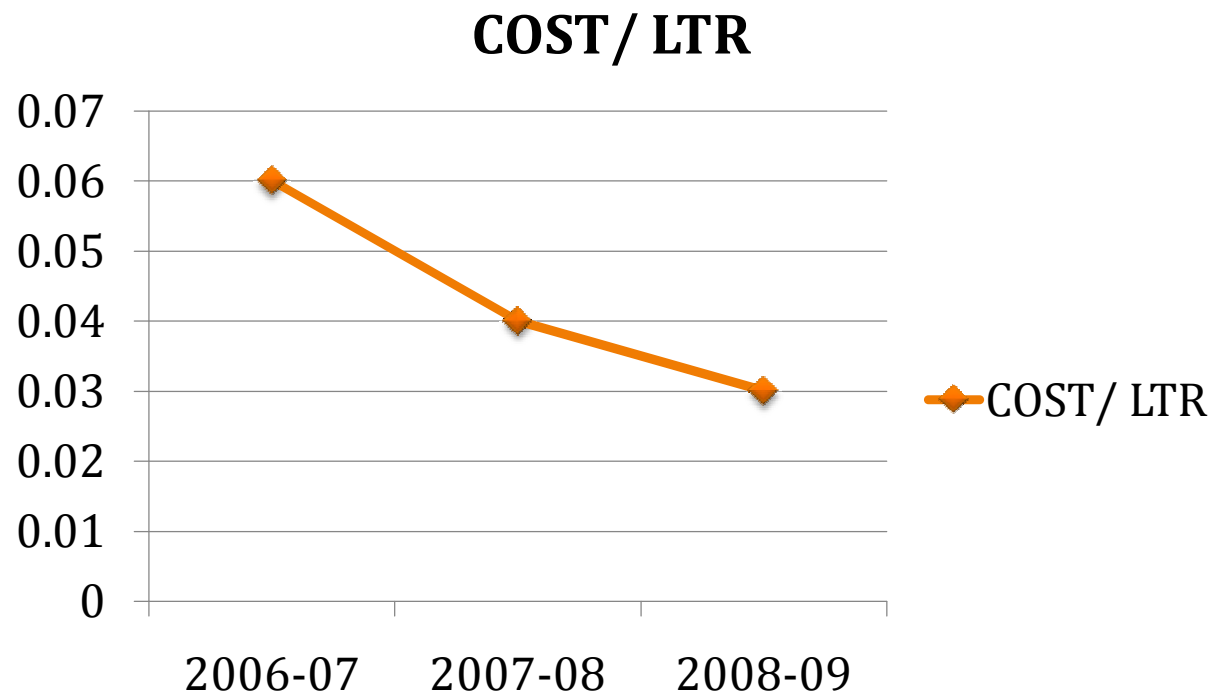
KOLLAM DAIRY

REPAIR COST / LITRE MILK PROCESSED

YEAR	MILK PROCESSED	REPAIR COST	COST/ LTR
2006-07	52998674	3019498	0.06
2007-08	54211939	2264499	0.04
2008-09	101291707	2663944	0.03



REPAIR COST / LTR MILK PROCESSED



ENERGY SAVING MEASURES ADOPTED



REFRIGERATION

1. Restricted the operation of Ammonia compressors during peak hours.
2. Modified the Accumulator and liquid metering devices to get maximum efficiency
3. Specific heat of the suction temperature is regularized
4. Replaced one 60 H P compressor motor with energy efficient motor
5. Timely oil purging and air purging reduced hrs. of operation
6. Provided anti room for dispatch dock and hence prevented the cold store temperature loss.
7. Cold store diffusers are maintained properly and reduced the operation of diffuser units.



PASTURIZATION

1. Pasteurization Temperature has been reduced from 78 °C to 76 °C
2. Pasteurization temperature variation made steady
3. Periodical Cleaning of Palate Pack increased efficiency

SACHET FILLING

- 1 .All Pneumatic machines have been replaced with Mechanical Machines**
- 2. 90 H P Air compressors replaced with 2 Nos 7.5 HP Air compressors.**

ELECTRICITY

1. 300W Mercury lamps have been replaced with 60 W Compact Fluorescent Lamps
2. Copper chokes of tube lights replaced with electronic Chokes
3. 40 W tubes replaced with 36W slim tubes.

BOILER

1. Replaced one Boiler with energy efficient Boiler
2. Re-insulation of Steam lines
2. Effective use of solar water
3. Arrested all leakages in the steam line.



WATER

1. Spring loaded valves installed in the wash basins/Urinals
2. Pressure jets being used for floor cleaning.
3. Installed overflow controller for water tanks.



COMPARISON OF ENERGY SAVINGS DURING THE YEAR 2007-08 & 2008-09

FURNACE OIL:

Milk Processed per lit. Furnace Oil has been increased by 27 Lit.

Percentage of savings of Furnace Oil-13.74%

Cost of furnace Oil Saved - Rs.11.70 Lakhs.

ELECTRICITY:

Electricity(KWH) 2.02 units / Lit.Milk processed is saved

● Percentage of Electricity Saved – 7%

● Cost of Electricity Saved. Rs. Rs.6.23 Lakhs.

PROPOSALS FOR ENERGY SAVINGS

Replacement of 7X7 NH3 compressor with energy efficient compressors on phased manner

De-super heater installation in Refrigeration compressor discharge line.

Replacement of motors with energy efficient motors.

Re use of Steam Condensate

Reuse of Cooling Water



Thank You